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[US/US]; 925 Page Mill Road, Palo Alto, CA 94304 (US).

(72) Inventor; and

(75) Inventor/Applicant (for US only): HARDING, Fiona, A.
[US/US]; 772 Lewis Street, Santa Clara, CA 95050 (US).

(74) Agent: MACKNIGHT, Kamrin, T.; GENENCOR INTERNATIONAL, INC., 925 Page Mill Road, Palo Alto, CA 94304 (US).

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(54) Title: POPULATION BASED PREDICTION METHODS FOR IMMUNE RESPONSE DETERMINATIONS AND METHODS FOR VERIFYING IMMUNOLOGICAL RESPONSE DATA

nM IC₅₀ For Binding To Purified HLA

Protein	DRB1									
	*101 (DR1)	*101 (DR3w17)	*101 (DR4w4)	*104 (DR4w14)	*105 (DR4w15)	*101 (DR7)	*102 (DR8w2)	*101 (DR9)	*1101 (DR5w11)	*1201 (DR5w12)
BPM Y217L .70	6.5	6737	33	5.7	168	154	1711	46	2382	80
BPM Y217L .109	8.8	—	30	168	37	2192	43	3019	—	1235
B. lentus 157	1065	16,433	4794	7575	6784	724	>16,333	1484	—	—
B. lentus .160	13	—	142	5542	1348	138	2033	164	5554	—

DRB1		DRB3/4/5			DQ		Degenery
*1302 (DR9w19)	*1501 (DR2w231)	*DRB3*0101 (DR52a)	*DRB4*0101 (DR63)	*DRB5*0101 (DR2w232)	DQA1*0501/DOB1*0201 (DQ2)	DQA1*0301/DOB1*0301 (DQ3.1)	
0.69	21	2010	31	15,689	670	440	2069
9.8	683	119	1071	1024	97	2182	80
2009	865	>8434	>6667	—	6157	8009	5009
559	127	6157	8257	1726	1296	63	1046
							12
							11
							2
							7

(57) Abstract: The present invention provides means to assess immune response profiles of populations. In particular, the present invention provides means to qualitatively assess the immune response of human populations, wherein the immune response directed against any protein of interest is analyzed. The present invention further provides means to rank proteins based on their relative immunogenicity. In further embodiments, the present invention provides means for verifying immunological response data, as well as means for predicting immune responses directed against any antigen/immunogen. In addition, the present invention provides means to create proteins with reduced immunogenicity for use in various applications.

WO 2005/119259 A2



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